REMARKS

Favorable reconsideration and allowance of the Claims of the present application are respectfully requested.

Applicants have carefully considered the Office Action mailed on May 22, 2009. Claims 22 and 38 are pending. The Official Action has rejected Claim 22 under 35 U.S.C. §112, first paragraph, as allegedly failing to comply with the written description requirement. The Official Action has further rejected Claim 22 under 35 U.S.C. §102(b) as allegedly anticipated by Naik et al. (*Journal of Comparative Neurology, 426*: 243-258, 2000) (hereinafter, "Naik"). The Official Action has further rejected Claims 22 and 38 under 35 U.S.C. §102(b) as allegedly anticipated by Hrabetova et al., (*Journal of Neuroscience, 16(17):5324-5333, September 1, 1996.)*(hereinafter, "Hrabetova").

Applicants have amended Claim 22. Support for this amendment can be found throughout the application generally, and in the paragraph bridging page 45-46 specifically. No new matter has been added.

This Response addresses each of the Examiner's objections and rejections. Applicants therefore respectfully submit that the present application is in condition for allowance. Favorable consideration of all pending claims is therefore respectfully requested.

Rejections under 35 U.S.C. §112

Claim 22 stands rejected under 35 U.S.C. §112 first paragraph as allegedly containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the Inventors, at the time the application was filed, had possession of the claimed invention.

The Official Action states that *In re Alonso* supports this position. The Federal Circuit in *In re Alonso* upheld the rejection of the claims in that application for lack of adequate of written description because Alonso was attempting to claim every antibody which binds to a neurofibrosarcoma, not just the antibody produced by the hybridoma cell line HB983. See *In re Alonso*, 545 F.3d 1015 (Fed. Cir. 2008). The Court held that the single antibody described in the specification was insufficiently representative to provide adequate written descriptive support for the genus of antibodies required to practice the claimed invention.

The holding in *Alonso* supports the Applicants' position that the antibody species is supported by the specification and contradicts the findings of the present Official Action. Here, as a contrast to what the Applicant in *In re Alonso* was attempting to claim, Claim 22 recites a single antibody. The species of antibody recited in Claim 22 has specific support in the application, particularly the bridging paragraph of pages 45-46.

Further, in *Enzo Biochem, Inc. v. GenProbe Inc.,* the Federal Circuit stated that there is adequate written descriptive support for a claimed invention where the disclosure specifies "relevant identifying characteristics," such as "complete or partial structure, other physical and/or chemical properties, functional characteristics when coupled with a known or disclosed correlation between function and structure, or some combination of such characteristics." See *Enzo Biochem , Inc. v. GenProbe Inc.,* 323 F.3d 956, 964 (Fed. Cir. 2002).

The disclosure of the claimed invention specifies the relevant identifying characteristics for the antibody of PKMζ recited in Claim 22, specifically by SEQ ID NO:2. This structure provides an adequate written description to one of ordinary skill in the art, enabling them to practice the claimed invention.

Accordingly, Applicants submit that the present application provides sufficient description and evidence to one skilled in the art that the inventors had possession of the claimed antibody at the time the present application was filed. Thus the rejection of Claim 22 has been overcome.

Therefore, it is respectfully requested that the rejection of Claim 22 under 35 U.S.C. §112, first paragraph, be withdrawn.

Rejections under 35 U.S.C. §102

Claim 22 stands rejected under 35 U.S.C. §102(b) as allegedly anticipated by Naik.

The antiserum disclosed in Naik is to the C-terminus of PKMζ, which, however, because the sequence is almost entirely shared with PKCι, is not specific to ζ and does not distinguish between ζ and ι. See Page 244 right column first full paragraph of Naik.

Claim 22 recites the purified antibody ζ-C2 which specifically binds to PKMζ. ζ-C2 does not cross-react with ι. The antibody recited in claim 22 is specific to PKMζ because it is to a sequence found in ζ but not ι, and therefore does not cross-react with PKCι. Thus, Naik is a deficient anticipatory reference for at least the reasons that it does not disclose the purified antibody ζ-C2 which specifically binds to the atypical isoform PKMζ, which is recited in Claim 22 of the present application.

Therefore it is respectfully requested that the rejection of Claim 22 under 35 U.S.C. §102(b) be withdrawn.

Claims 22 and 38 stand rejected under 35 U.S.C. §102(b) as allegedly anticipated by Hrabetova. Hrabetova discloses immunoblots used in conjunction with a C-terminal antisera. See page 5325 last full paragraph in left column of Hrabetova. The antisera in Hrabetova

detected both PKC ι/λ and PKMζ by binding to both PKC isozymes non-specifically. See page 5325 last full paragraph in left column and FIG. 4c of Hrabetova.

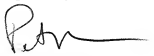
Claim 22 recites the purified antibody ζ-C2 which specifically binds to PKMζ. ζ-C2 does not cross-react with ι. The antibody recited in claim 22 is specific to PKMζ because it is to a sequence found in ζ but not ι, and therefore does not cross-react with PKCι. Thus, Hrabetova is a deficient anticipatory reference for at least the fact that it does not disclose the purified antibody ζ-C2 which specifically binds to the atypical isoform PKMζ, which is recited in Claim 22 of the present application.

Claim 38 recites a purified antibody which specifically binds to PKCι/λ. The antibody recited in Claim 38 specifically binds to PKCι/λ, and does not cross react with PKMζ. The antibody recited in claim 38 is specific to PKCι/λ because it is to a sequence found in ι/λ but not ζ, and therefore does not cross-react with PKMζ. Thus, Hrabetova is a deficient anticipatory reference for at least the fact that it does not disclose the purified antibody which specifically binds to PKCι/λ, which is recited in Claim 38 of the present application.

Therefore it is respectfully requested that the rejection of Claims 22 and 38 under 35 U.S.C. §102(b) be withdrawn.

In view of the foregoing amendments and remarks, it is firmly believed that the subject application is in condition for allowance, which action is earnestly solicited.

Respectfully submitted,



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